ating lines of variation which were most instructive, and which found a place in some of the most important museums. He had been long a widower, and, as age diminished his energies, he retired to Oakland, where for the last few years he made his home with an only daughter. His kindly ways and generosity to others will keep his memory green among those who knew him. He left what is doubtless the best and most complete collection of Pacific coast shells, up to the time of his retirement, that is to be found anywhere except in the National Museum. It is particularly rich in series showing variation, and in the land shells; also including much valuable exotic material received in exchange. It is to be hoped that this collection may be preserved intact in one of the public institutions of the Pacific coast, as at present a collection of shells worthy of the state of his adoption does not exist in any university or museum west of the Rockies.

Wm. H. Dall

SCIENTIFIC NOTES AND NEWS

On account of the international crisis, the meeting of the American Chemical Society, which was to have been held in Montreal in September, has been indefinitely postponed.

Dr. Max Rubner has been appointed director of the Kaiser Wilhelm Laboratory for Physiology to be erected in Berlin.

Dr. Karl Runge, professor of applied mathematics at Göttingen and several years since visiting professor to Columbia University, has been elected Prorektor of the University of Göttingen.

Dr. Wilhelm Waldeyer, professor of anatomy at Berlin, celebrated the fiftieth anniversary of his doctorate on July 20.

Dr. Alexis Carroll, of the Rockefeller Institute for Medical Research, is reported to have gone to the front as a French army surgeon.

Lord Welby has been elected president of the Royal Statistical Society.

Dr. Severance Burrage, professor of sanitary science in Purdue University, has been elected president of the Indiana Academy of Sciences.

Dr. Mazyck P. Ravenel, who recently resigned the chair of bacteriology in the University of Wisconsin to accept a similar chair in the University of Missouri, has been appointed a member of the advisory board of the hygienic laboratory of the United States Public Health Service, Washington.

Major Thomas L. Rhodes has been transferred to the Panama Canal service, and has been appointed superintendent of the Colon Hospital.

Dr. Oscar Riddle, of the Carnegie Institution, delivered the annual address before the American Academy of Medicine at its Atlantic City meeting on the evening of June 19. His subject was "The Determination of Sex and Its Experimental Control."

"Panama and the Canal" was the subject of an illustrated lecture at the University of Chicago on August 17, by Mr. Frank A. Gause, superintendent of the schools of the Canal Zone.

Professor H. L. Fairchild delivered a lecture on "Ancient Sea Margins in the Hudson and Connecticut Valleys" before the students of geography and geology at the Columbia University summer session on August 12.

The name "Rio Theodoro" has been given by the Brazilian government, at the suggestion of Dr. Müller, Brazilian secretary of state for foreign affairs, to the river recently explored by Mr. Roosevelt's expedition, and heretofore known as the Rio da Duvida.

We learn from *Economic Geology* that the Division of Mines of the Bureau of Science, Philippine government, has recently suffered the loss of Mr. Paul R. Fanning, metallurgist, who is now metallurgist for a zinc company, and Mr. Frank T. Eddingfield, mining engineer, who has reurned to Washington. Mr. Wallace E. Pratt, geologist, has returned from six weeks' reconnaissance work in the Caramoan Peninsula, southeastern Luzon, where there exists a very interesting area of schistose rocks. He also made an examination of an iron deposit on a small island in the mouth of

Mambulæ Bay, Ambos Camarines. Warren D. Smith, chief of the division, has returned from two months' field work in northern Luzon in the territory of the Kalingas and Ifugaos. He secured a collection of fossil plants and also marine tertiary fossils. Mount Amuyo, the second highest peak in Luzon, was ascended and its elevation determined by hypsometer. The extension of the Benguet and Mancayan-Suyoc mineral belt was traced and new areas indicated for prospecting.

THE Royal Society of Arts has received from Mr. R. Le Neve Foster £100 to found a prize in memory of his father, the late Mr. Peter Le Neve Foster.

A MOVEMENT for the foundation of a Scottish Oceanographical Institute in Edinburgh, to be a memorial to the late Sir John Murray, has been inaugurated, a committee having been formed for the purpose of considering how such an institution may best be organized, with power to issue an appeal for funds. The members of the committee include Lord Stair, president of the Royal Scottish Geographical Society; Professor James Geikie, president of the Royal Society of Edinburgh; J. Y. Buchanan, of the Challenger Expedition; Dr. W. S. Bruce and others.

DR. ALBERT SMITH BICKMORE, superintendent of the American Museum of Natural History from 1869 to 1904 and subsequently in charge of the department of public instruction until his retirement as professor emeritus in 1904, died on August 13, at the age of seventy-five years.

THE death is announced of M. Fernand Foureau, the explorer of the Sahara and governor of the colony of Martinique, at the age of sixty-four years.

DR. JOSEF HANNACK, a distinguished Austrian engineer, has died at the age of fifty-nine years.

PROFESSOR HERMANN KLEIN, of Cologne, known for his contributions to astronomy and meteorology, has died at the age of seventy years.

THE U. S. Civil Service Commission announces an examination for specialist in industrial education to fill a vacancy in this position in the Bureau of Education, at a salary of $3,500 a year. The duties of this position will be performed at Washington, D. C., and elsewhere, and will include the study of vocational education, the collection and compilation of information relating thereto, and the giving of advice to education officers throughout the United States for the establishment of courses of study in vocational education.

DR. HRDLIČKA, secretary of the Nineteenth International Congress of Americanists, writes that unless unfavorable conditions due to the war in Europe make a change in date imperative, the congress will be held at Washington as announced, October 5 to 10.

THE eighth meeting of the Italian Society for the Advancement of Science will be held at Bari on October 8–13, 1914, under the presidency of Professor Camillo Golgi.

THE International Pharmaceutical Federation planned to meet at Berne on August 7 and 8 under the presidency of Professor L. van Itallie.

THE Swiss *Naturforschende Gesellschaft* offers prizes for the solution of the following problems: For June 1, 1915: "To Investigate Radioactivity and Electricity of the Atmosphere in the Alps, the Jura and Intermediate Regions." For June 1, 1916: "The Phenomenon of Twilight according to Former and New Observations in Switzerland."

ACCORDING to the *Scientific American* the South American expedition of the University of Pennsylvania Museum has completed a year of highly successful exploration in the region lying along the boundary between Brazil and the Guianas. Besides important geographical discoveries, the expedition has obtained ethnological information relative to twelve different tribes, half of which were hitherto entirely unknown, including vocabularies and other linguistic studies, anthropometric measurements, collections of myths and legends, and about 600 photographs. The next work of the expedition will probably be in the territory drained by the upper Rio Negro and the upper Orinoco.

The Paris correspondent of the *Journal* of the American Medical Association reports that the Société française d'eugénique, will organize, at the beginning of the school year, a series of lecture courses in eugenics at the Ecole des hautes études sociales. M. Edmond Perier, director of the Muséum d'histoire naturelle, will show the relations which exist between eugenics and biology; Dr. Apert, physician at the Andral Hospital, will discuss the questions of heredity related to those of eugenics; Dr. Papillault, professor of sociology at the Ecole d'anthropologie, will show how, thanks to eugenics, a well-defined selection may be made; Dr. Pinard, former professor of clinical obstetrics at the Faculté de médecine de Paris, will study eugenics and child-culture; Dr. Weiss, professor at the Faculté de médecine de Paris, will discuss eugenics in its relation to physical culture; Dr. Schreiber, head of the clinic affiliated with the Faculté de médecine de Paris, will show how one ought to understand eugenics from the point of view of marriage; Dr. Roussy, director of scientific research at the Ecole des hautes études, will study eugenics and the perfecting of the human race.

The U. S. Coast and Geodetic Survey has published "Results of Observations made at the Magnetic Observatory near Tucson, Ariz., in 1911 and 1912." This publication contains hourly values of the magnetic declination, horizontal intensity and vertical intensity for the two years, based on the continuous photographic record of the magnetograph. It furnishes the means of correcting field magnetic observations for the effect of the diurnal variation and magnetic storms, and adds to the data available for a study of the causes of these and other fluctuations to which the earth's magnetism is subject. It contains also a table giving the times at which earthquakes were recorded by the seismograph at the observatory. This publication is the second one of the Tucson series, the work of that observatory having been started in November, 1909, and may be obtained free of charge by addressing the Division of Publications, Department of Commerce. Similar series of publications are available for the other magnetic observatories of the Coast and Geodetic Survey as follows: Cheltenham, Md., 1901–1912; Baldwin, Kans., 1901–1909; Honolulu, T. H., 1902–1912; Sitka, Alaska, 1902–1912; Vieques, Porto Rico, 1903–1912.

The *British Medical Journal* states that the annual general meeting of the Lister Institute of Preventive Medicine was held at the institute, Chelsea Gardens, on May 13. Sir John Rose Bradford, who last year succeeded Sir Henry Roscoe in the chairmanship of the governing body, presided. The report pointed out that the institute had borne a share in several collective inquiries of importance. Dr. Ledingham had continued to supervise the bacteriological examination of material from cases diagnosed as typhoid fever or suspected typhoid, and had drawn up a report—published in the annual report of the medical officer to the local government board—on the work done by him in conjunction with Dr. Theodore Thomson, of the local government board, in making bacteriological examinations of typhoid convalescents at intervals for several months after discharge from the hospitals of the metropolitan asylums board. An extensive inquiry into the bacteriological and chemical purity of dried milk, creams and foreign pasteurized milks had been undertaken for the local government board by the bacteriological and biochemical departments of the institute, and over 3,000 samples of milk had been examined for tubercle bacilli for the London county council and a large number for the health departments of various boroughs. The report also contained a reference to the eighth report of the investigations into plague, carried out under the auspices of the advisory committee, consisting of representatives of the institute, the India Office, and the Royal Society. Inquiries during the year had been proceeding both in India and at the institute's special isolated laboratories at Elstree. It is added that by arrangement with the metropolitan asylums board the research pathologist of that authority, Dr. Mair, has accommodation at the institute. The accounts for the year ending December 31, 1913, show an excess of income over expenditure of £750 at Chelsea,

and £4,938 at Elstree. The report contained the following paragraph with reference to a matter which is now exciting a great deal of attention: "In view of the new department of medical research now being established by H.M. government in accordance with the provision in the National Insurance Act of 1911, the governing body has been considering whether it would not be in the interest of medical science in this country that they should recommend to the members of the institute to offer, under conditions, to the nation, the organization and resources of the Lister Institute, as the nucleus of the government scheme. At present, however, the governing body are not in a position to make any more definite statement or recommendation on the subject." Sir Rickman Godlee made some inquiries with regard to the subject raised by this statement. He asked whether it was proposed to hand over the institute at Chelsea to the government, and to discontinue the department at Elstree, and the preparation of serums. The chairman said that the proposal to hand over the institute to the government had not gone beyond an interchange of views with the medical research committee presided over by Lord Moulton as to the conditions under which the institute might be presented to the nation; the conversations included the discussion of financial arrangement, but it was not possible to say more at the moment. In reply to Dr. Sidney Turner, who expressed some apprehension that the character of the work done at the institute might deteriorate if it passed under the control of a government committee, the chairman and treasurer said that they were not in a position to make any further statement. The governing body also reported that it had during the year received a munificent legacy, amounting with interest to £17,303, bequeathed by the late Lord Lister, and that it had been arranged to utilize this bequest to give practical effect to a scheme the governing body had for some time been desirous of setting up—to make provision for the superannuation of members both of the higher and the subordinate staffs of the institute on attaining the age of 65 years, or in special cases that of 60 years. It is proposed to allow the bequest to accumulate at compound interest until such time as, some years hence, the pension claims begin to mature. To this fund the governing body will add £700 annually from the general income of the institute.

MEMBERS of the British committee for the economic preservation of birds have issued a statement recommending the following six suggestions as a working basis: (1) Absolute protection during breeding season for all breeding wild birds of whatever kind. (2) Absolute protection for all birds found upon inquiry to be either verging upon extinction, highly localized, or of determined benefit in agricultural centers. These birds to be known as "Birds of Class I." (3) Regulations to be enforced by government or local authorities under government for species that have commercial value and are not in danger. These birds to be known as "Birds of Class II." The government of the countries of origin to tax the sale of these species and thereby recover the cost of enforcing regulations. (4) The permanent maintenance of an international committee of scientific experts to determine year by year which species belong of right to the respective classes. (5) An international agreement to refuse importation to the world's markets, museums and private collections of all species that are found to belong to "Class I." (6) All species in "Class II." to be exported under license. The committee would place at once in "Class I." the following birds: The family of chatterers, the cattle egret, the resplendent trogon, the lyre birds, the rifle bird of Australia, the regent bower bird, the flamingo, the spoonbills, the trogopans, the Impeyan (monal) pheasants, the red bird of paradise of the Waigu Island, the Prince Rudolf, Lawes's, Prince Wilhelm's, Rothschild's, Princess Stephanie's and Meyer's bird of paradise.

IN connection with the development of the Langley Aerodynamical Laboratory of the Smithsonian Institution, which was reopened in May, 1913, by action of the regents of the institution, Dr. A. F. Zahm, the recorder of

the laboratory, recently made a trip abroad investigating the European aeronautical laboratories. His report forms publication 2,273 of the Smithsonian Miscellaneous Collections, and is the third dealing with the interests and activities of the laboratory. It covers the equipment and scope of the principal European laboratories and shows what steps are being taken by them toward the perfection of the art of flying and the science of aeronautics. Accompanied by Assistant Naval Constructor Jerome C. Hunsaker, U. S. N., Dr. Zahm visited the principal aeronautical laboratories near London, Paris and Göttingen, to study, in the interest of the institution, the latest developments in instruments, methods and resources used and contemplated for the prosecution of scientific aeronautical investigations. Incidentally they inspected many of the best aerodromes or flying fields, and air crafts factories in the neighborhood of these cities, making copious notes on their observations. Aeronautical libraries were also visited, and comprehensive lists of the best and latest publications on this subject prepared for the use of the laboratory library. The following laboratories were examined: Aeronautical research and test establishments of the British government near London; the Institut Aerotechnique de St. Cyr and the Laboratorie Aerodynamique Eiffel, near Paris; the Göttingen Modelversuchsanstalt, in the city of that name, and the newly organized laboratory adjoining the flying field at Johannisthal, near Berlin, known as the Deutsche Versuchsanstalt für Luftfahrt zu Adlershof. All these establishments, the author states, are devoted both to theoretical and practical investigations, under the direction of highly trained men who not only serve as executives and initiate the researches, but lend their personal assistance in the various technical experiments. They differ as to endowment; those in England and Göttingen being supported by governmental grants, the others by private capital. The laboratories near London, at St. Cyr and Adlershof, are broad in their scope, but the Eiffel and the Göttingen laboratories confine their activities mainly to wind-tunnel experiments. The experimental procedure of each is noted, and the buildings and apparatus of the different plants are carefully described. The purpose of the Langley laboratory is primarily to plan and conduct such theoretical and experimental investigations, tests and reports as may serve to increase the safety and efficiency of aerial locomotion for commercial advance and national defense.

UNIVERSITY AND EDUCATIONAL NEWS

MR. DANIEL BAUGH, the founder of the Baugh Institute of Anatomy, Jefferson Medical College, Philadelphia, has purchased and added to his original gift, the premises 236 and 238 Pine Street, as an addition to the school, and has given $5,000 for the improvement and equipment.

THE new laboratory of medical sciences at the University of Chicago will be located on the west side of Ellis Avenue, and will have a frontage of approximately one hundred and eighty feet and a depth of about fifty feet, with wings at the north and south ends fifty feet in width and extending back eighty feet. The new building will consist of general and private laboratories, research laboratory rooms, class- and working-rooms, and also an assembly room in the rear, thirty by forty feet, to accommodate one hundred and fifty to two hundred students. The building, one story in height, will be of brick exterior. This new laboratory will be occupied by the department of hygiene and bacteriology and the department of pathology. The work is already under way, and it is expected that the building will be ready for occupancy at the opening of the autumn quarter on October 1. The cost of the building will be about $50,000. The university board of trustees has voted to give the name of Howard Taylor Ricketts to the new laboratory. Dr. Ricketts, who was connected with the department of pathology at the university for eight years, died in Mexico from typhus fever, which he contracted while investigating the disease.

WARD L. RAY, B.A. (Oregon), M.A. (Wisconsin), professor of chemistry and physics at William and Vashti College, has been elected